

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

REMARKS

This amendment is submitted in response to the Office Action mailed December 27, 2007. Claims 1, 2, 4-11 and 13 remain pending in the application prior to this amendment and stand rejected. New claim 14 has been added. Applicants respectfully request reconsideration in view of the following remarks.

Claims Rejected Under 35 U.S.C. §102

Claims 10 and 11 stand rejected under 35 U.S.C. §102(b) as being anticipated by PCT Publication No. WO99/54057. Claim 10 is the only independent claim of this rejected group and is directed to a method of dispensing liquid material. Claim 10 recites "pulsing the pressurized air while dispensing the liquid material to cause the liquid material to move in a desired pattern as the attenuated continuous stream" (emphasis added). Applicants respectfully traverse the rejection of claim 10 because WO99/54057 does not disclose pulsing pressurized air while dispensing liquid material to move the liquid material in a desired pattern, as alleged by the Examiner. Rather, WO99/54057 is directed to an apparatus and method for applying controlled patterns of fibrous material wherein the orientation of air outlets causes the fibers to oscillate in a desired pattern.

While WO99/54057 describes the liquid material and pressurized air as being provided as a continuous or intermittent supply, the function of the continuous or intermittent supply of air and adhesive is only to ensure well-defined cut-on and cut-off edges of the material on the substrate. (See WO99/54057 at page 16, lines 2-11 and at

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

page 22, line 19-page 23, line 6.) Accordingly, WO99/54057 discloses the use of intermittent or continuous air and adhesive (i.e., cutting the air and adhesive on and off) only to create the well-defined cut-on and cut-off edges. This is the state of the art that is disclosed in the background of the instant Application. (See, e.g., Application at paragraphs [0003]-[0004].) Specifically, the Application states "recently, fibrous web adhesive dispensers have incorporated intermittent control of adhesive and air flows to form discrete patterns of fibrous adhesive layers with well defined cut-on and cut-off edges and well defined side edges." (Application at paragraph [0004].)

To control the pattern of the dispensed liquid material, WO99/54057 discloses that oscillation is due to the arrangement of air outlets relative to the liquid outlets. "The orientation of the air and material outlets in accordance with the principles of the present invention improves control of the dispensed material to form a desired pattern on the moving substrate." (WO99/54057 at page 7, lines 16-19.) "The orientation of the material outlets and air outlets in accordance with the principles of the present invention preferably causes the fibers to oscillate in a generally cross-machine direction that improves blending of adjacent fibers." (WO99/54057 at page 9, lines 8-11.) At page 26, line 16, to page 27, line 10, WO99/54057 describes how the orientation of the air outlets 84 causes adhesive fibers to oscillate. Nowhere in WO99/54057 is there any disclosure of pulsing pressurized air while dispensing liquid material to move the dispensed liquid material in a desired pattern.

For at least the reasons discussed above, Applicants respectfully request that the rejection of claim 10 over WO99/54057 be withdrawn.

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

Claim 11 depends from claim 10 and is therefore in condition for allowance for at least the reasons discussed above with respect to claim 10. Accordingly, Applicants respectfully request that the rejection of claim 11 be withdrawn.

Claims Rejection Under 35 U.S.C. §103

Claims 1, 2, 4-6, 9 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO99/54057. Claims 7 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO99/54057 in view of U.S. Patent No. 4,995,333 to Keller et al. Claims 1 and 9 are the only independent claims of these rejected groups and are directed to apparatus for dispensing liquid material. Claim 1 recites:

a controller coupled with said air valve and operable to actuate said air valve in a manner that pulses the pressurized air discharging from said air outlet as the liquid material is discharged to move the liquid material discharging from said liquid discharge outlet in a desired pattern as the attenuated continuous stream.

Claim 9 recites:

a controller coupled with said air valve and operable to actuate said air valve in a manner that varies the pressure of the pressurized air discharging from said air outlet as the liquid material is discharged to move the liquid material discharging from said liquid discharge outlets and desired patterns.

Applicants respectfully traverse the rejections of claims 1 and 9 because WO99/54057 fails to disclose an air valve and a controller coupled with the air valve, the controller being operable to actuate the air valve in a manner that pulses the pressurized air, as set forth in claim 1, or that varies the pressure of the pressurized air,

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

as set forth in claim 9. Specifically, WO99/54057 only discloses the intermittent or continuous supply of air and liquid material to create well-defined cut-off and cut-on edges of the dispensed adhesive and not to create oscillating patterns of the adhesive, as discussed above. Accordingly, it would not have been obvious to modify the apparatus of WO99/54057 to include a controller that is operable to pulse the pressurized air or to vary the pressurized air, as alleged by the Examiner. For at least these reasons, Applicants respectfully request that the rejections of claims 1 and 9 be withdrawn.

Claims 2 and 4-6 each depend from independent claim 1, and claim 13 depends from independent claim 10. Accordingly, claims 2, 4-6 and 13 are each in condition for allowance for at least the reasons discussed above with respect to claims 1, 9 and 10, and Applicants respectfully request that the rejections of these claims be withdrawn.

Claims 7 and 8 each depend claim independent claim 1 and are therefore in condition for allowance for at least the reasons discussed above for independent claim 1, and because Keller '333 fails to cure these deficiencies. Specifically, Keller '333 does not disclose pulsing pressurized air. Claim 8 depends from claim 7 and further recites that the hot air manifold "comprises a flat heater operable to transfer heat to the air supplied to said nozzle." Applicants further traverse the Examiner's assertion that the type of heater recited in claim 8 is a matter of design choice. The particular type of manifold heater recited in claim 8 serves the purpose stated in the Application of providing "robust control of the pulsed air provided to the nozzle 44." (See Application at paragraph [0027].) Applicants submit that it is not inherent that any type of heating

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

device would perform equally as well, as alleged by the Examiner. For at least the reasons discussed above, Applicants respectfully request that the rejection of claims 7 and 8 be withdrawn.

New Claim

New claim 14 has been added by this amendment. Claim 14 is directed to a method of dispensing liquid material, similar to claim 10, but recites "varying the pressure of the pressurized air while dispensing the liquid material to cause the liquid material to move in a desired pattern as the attenuated continuous stream." Support for new claim 14 can be found in the Application with reference to paragraph 0025, for example. Accordingly, no new matter has been added. Applicants further assert that claim 14 is in condition for allowance for at least the same reasons discussed above with respect to claim 9. Specifically, the references of record fail to disclose varying the pressure of pressurized air to move a stream of liquid material in a desired pattern. Applicants therefore respectfully request early and favorable indication of allowance of claim 14.

Conclusion

In view of the foregoing remarks, Applicants believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any issue requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The

Application Serial No. 10/700,612
Reply to Office Action dated December 27, 2007
Amendment dated March 24, 2008

Examiner's prompt attention to this matter is appreciated.

Applicants do not believe that any fee is due in connection with this submission. However, if any fees are necessary to complete this communication, the Commissioner may consider this to be a request for such and charge any necessary fees to Deposit Account No. 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

/David W. Dorton/
David W. Dorton, Reg. No. 51,625

2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202
(513) 241-2324 (voice)
(513) 241-6234 (facsimile)